
ABSTRACT

AD
Process for forming dual gate oxides for DRAMS by incorporating different thicknesses of gate oxides by using nitrogen implantation. Either angled nitrogen implantation or nitride spacers is used to create a "shadow effect" or area, which limits the nitrogen dose close to the edges of the active area. The reduction of nitrogen dose leads to an increased gate oxide thickness at the active area (AA) adjacent to the shallow trench, increases the threshold of the parasitic corner device and reduces sub V_t (threshold voltage) and junction leakage.

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